

IN THE CLAIMS

Please amend the claims as follows:

1. (Previously Presented) An integrated circuit (IC) package comprising:
a substrate supporting at least a die; and
a package stiffener mounted at a perimeter of the substrate, and arranged apart from the die on the substrate to deliver low-inductance current to the die, via the substrate, while concurrently providing stiffening support to the substrate.
2. (Previously Presented) An IC package as claimed in claim 1, wherein the package stiffener includes a copper (Cu) ring split into power and ground portions, and insulating couplers electrically isolating the power and ground portions of the split copper (Cu) ring.
3. (Currently Amended) An IC package as claimed in claim 2, wherein the split copper (Cu) ring ~~is mounted~~ mounts on the substrate, via a solder ~~providing with~~ providing a low resistance path to deliver large amounts of current to the substrate and remove heat from the substrate.
4. (Currently Amended) An IC package as claimed in claim 1, wherein the substrate ~~includes~~ includes one of a thick-core, a thin-core, and a coreless substrate in one of a ceramic, a flex, and an integrated circuit printed circuit board (IC-PCB) carrier package.
5. (Previously Presented) An IC package as claimed in claim 4, further being one of a pinned grid array (PGA), and a ball grid array (BGA) carrier package.
6. (Previously Presented) An IC package as claimed in claim 4, further being one of a flip chip pin grid array (FC-PGA), and a flip chip ball grid array (FC-BGA) carrier package.

7. (Currently Amended) An IC package as claimed in claim 1, wherein the package stiffener ~~made of~~ includes one of electrically conductive, insulating, and intermingled electrically conductive and insulating sections, ~~[[is]]~~ and one of a molded, stamped, etched, extruded and deposited frame, wherein the stiffener is to withstand ~~and is capable of withstanding~~ temperatures of at least normal IC operation.

8. (Previously Presented) An IC package as claimed in claim 2, further comprising a heat spreader plate bonded to the split copper (Cu) ring by epoxy and to the die by thermal interface material.

9. (Currently Amended) An IC package as claimed in claim 1, wherein the package stiffener is ~~adapted~~ to support at least partially a heat sink.

Claims 10-62. (Canceled)

63. (Currently Amended) An integrated circuit (IC) package comprising:
a substrate having a die-side, wherein a die is disposed upon the die-side of the substrate;
and
a ~~[[PGID]]~~ power/ground/impedance deliverer (PGID) disposed upon the die-side of the substrate, and spaced from the die to deliver low-inductance current to the die, via the substrate, while concurrently providing stiffening support to the substrate.

64. (Canceled)

65. (Previously Presented) An integrated circuit (IC) package as claimed in claim 63 wherein the PGID extends along at least two side edges of the substrate.

66. (Previously Presented) An integrated circuit (IC) package as claimed in claim 63 wherein the PGID is positioned at two separate sections on the substrate.

67. (Previously Presented) An integrated circuit (IC) package as claimed in claim 63 wherein the PGID is positioned at separate corner edges of the substrate.

68. (Currently Amended) An integrated circuit (IC) package as claimed in claim 63 wherein the PGID includes [[is]] a ring that extends along the perimeter of the substrate.

69. (Previously Presented) An integrated circuit (IC) package as claimed in claim 68 wherein the PGID has rounded corners.

70. (Previously Presented) An integrated circuit (IC) package as claimed in claim 63 wherein the PGID and the substrate have similar coefficients of thermal expansion.

71. (Previously Presented) An integrated circuit (IC) package as claimed in claim 63 wherein the PGID has a ground side portion and a power side portion.

72. (Previously Presented) An integrated circuit (IC) package as claimed in claim 71 wherein the ground side portion and the power side portion are separated by insulating couplers.

73. (Previously Presented) An integrated circuit (IC) package as claimed in claim 72 wherein the insulating couplers aid in the structural integrity of the PGID.

74. (Currently Amended) An integrated circuit (IC) package as claimed in claim 63 further comprising a spreader plate that couples the PGID and the die, wherein the PGID and the die are [[in]] between the spreader plate and the substrate.

75. (Previously Presented) An integrated circuit (IC) package as claimed in claim 74 wherein the spreader plate and the PGID are integral.

76. (Previously Presented) An integrated circuit (IC) package comprising:
a substrate having a die-side, wherein a die is disposed upon the die-side of the substrate;

a power pod supplying power to the die; and

a package stiffener disposed upon the die-side of the substrate, and spaced from the die to deliver low-inductance current to the die, via the substrate, while concurrently providing stiffening support to the substrate, wherein the package stiffener electrically couples the power pod and the substrate.

77. (New) An integrated circuit (IC) package as claimed in claim 1 wherein the package stiffener includes a plurality of cooling fins.

78. (New) An integrated circuit (IC) package as claimed in claim 1 wherein the package stiffener includes a capacitor.

79. (New) An integrated circuit (IC) package as claimed in claim 78 wherein the capacitor includes an insulator.

80. (New) An integrated circuit (IC) package as claimed in claim 1 wherein the package stiffener includes at least one of a plurality of power ground sections and a plurality of insulating couplers.

81. (New) An integrated circuit (IC) package as claimed in claim 1 wherein the package stiffener includes a ground path from the die to the substrate.

82. (New) An integrated circuit (IC) package as claimed in claim 1 wherein the package stiffener includes a rectangular frame.

83. (New) An integrated circuit (IC) package as claimed in claim 1 wherein the package stiffener includes a rounded frame.

84. (New) An integrated circuit (IC) package as claimed in claim 63 wherein the PGID includes a capacitor.

85. (New) An integrated circuit (IC) package as claimed in claim 84 wherein the capacitor includes an insulator.

86. (New) An integrated circuit (IC) package as claimed in claim 63 wherein the PGID includes a plurality of cooling fins.

87. (New) An integrated circuit (IC) package as claimed in claim 63 wherein the PGID includes at least one of a plurality of power ground sections and a plurality of insulating couplers.

88. (New) An integrated circuit (IC) package as claimed in claim 63 wherein the PGID includes a ground path from the die to the substrate.

89. (New) An integrated circuit (IC) package as claimed in claim 76 further comprising a plurality of power pods supplying power to the die.

90. (New) An integrated circuit (IC) package as claimed in claim 76 wherein the package stiffener includes a capacitor.